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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,322	11/19/2001	Hiromasa Ishiwata	356202/00	8420

7590 08/28/2002

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EXAMINER

VY, HUNG T

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

dm

# Office Action Summary

Application No.

09/988,322

Applicant(s)

ISHIWATA ET AL.

Examiner

Hung T Vy

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 11/19/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

## **DETAILED ACTION**

### **Foreign Priority**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 11/22/2000.

### **Claim Objections**

2. Claims 11-14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Applicant should correct phrase "claim 11" in claim 11 and "claim 13" in claim 13.

Claims 12 and 14 depend from objected claim 11, thereby rendering these dependent claims indefinite.

For examining purpose, it is assumed that claim 11 depends on claim 10 and claim 13 on claim 12.

### **Claim Rejections - 35 USC § 102**

3, The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

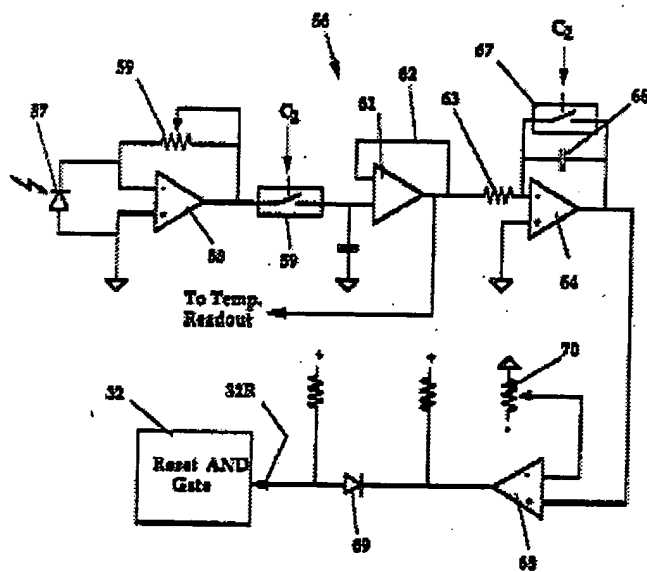
Claims 1-4, and 8-11 are rejected under 35 U. S. C. § 102 b as being anticipated by Rink, U.S. patent No. 4,950,268.

Regarding to claims 1,2,8 and 9, Rink disclosed in fig. 2 a control circuit for laser diode, comprising: an amplifier circuit (64) producing at an output terminal and feedback voltage that is indicative of an optical power via PD (57) generated by laser diode (not shown) in response to a driving current flowing there through; a driving circuit responding to output voltage to control driving current so as to make voltage difference small; a second amplifier circuit (61) producing at a second output terminal. (See Fig. below). It is inherent that amplifier circuit driving output terminal with a first time constant during a steady operation (created by two switch C2 ) and with second time second time constant because, when switch(67) is off (open) the gain the operation amplifier (66) is determined by the resistor (63) and capacitor (66), the RC operating to suppress overshoot and/or undershoot of the signal, thus amplifier (64) drives the terminal with a first time constant. When switch (67) is on (close) and switch (59) open then the operation of amplifier (64) functions as a voltage follower in spite of the resistor

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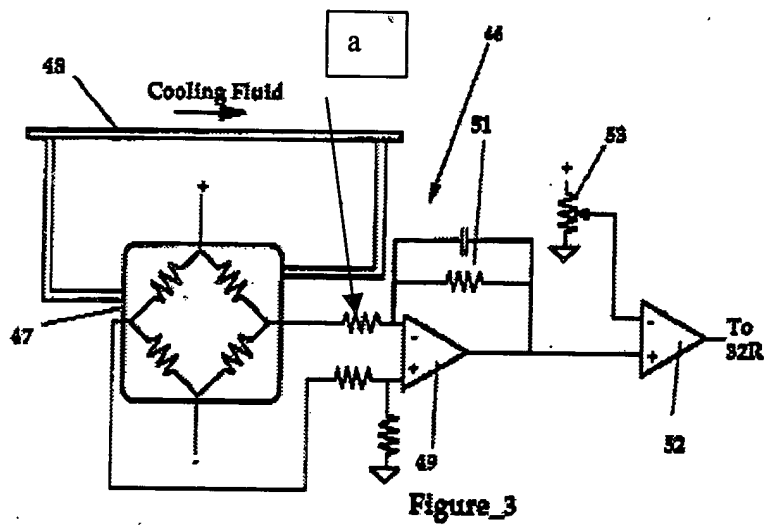
(63) and capacitor (66). Thus, the amplifier 64 drives with a second time constant that is smaller the first time constant. (See Fig. below);

Regarding to claim 3, and 10 Rink discloses at least one of first and second amplifier circuit includes an operational amplifier (64 and 61), a capacitor (66) coupled between output and input ends of operation amplifier and first switch (67) coupled in parallel to capacitor (66) (See column 6, line 28 – 53 and Fig. below)



Figure\_2

Regarding to claim 4, and 11, Rink discloses amplifier (49) circuit further a first resistor (a), a second resistor (51) coupled in parallel to capacitor (See fig. below).



### Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 -7, and 12-14 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Rink, U.S. patent No. 4,950,268.

Regarding to claim 5 - 7, 12 and 14, Rink discloses the claimed invention as amplifier circuit further includes a reference voltage, except for (a) having first reference voltage for steady operation and second reference voltage that is higher than the first reference voltage for initiation instead of just one reference; and further having third switch and fourth switch coupled between input end of amplifier. It would have been an obvious matter of design choice to made to have a to b to operation circuit more stable

and shift in operation mode can be attained at a high speed, since applicant has not disclosed that is for any particular purpose and it appears that the prior art would perform equally well with two reference voltages and three or fourth switch instead of just one.

### **Citation of Pertinent References**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Minami et al. disclose Laser Diode Current Supply Including a Threshold Current Component Subject To Automatic Power Control, U.S. Patent No. 5,197,059.

The patent to Eastman et al. disclose Laser Power Control In An Optical Recording System To Compensate For Multiple System Degradations, U.S. Patent No. 5,446,716.

The patent to Koishi discloses Semiconductor Laser Drive Circuit Including Switched Current source, U.S. Patent No. 5,513,197..

The patent to Larson discloses Hight Frequency analog Switch For Use with A Laser Diode, U.S. Patent No.5,767,704.

The patent to Maekawa et al. disclose Light emitting Control Apparatus and Optical Transmitter, U.S. Patent No.5,978,124.

The patent to Terao discloses Laser Having a Connection detector For  
Monitoring a Connection Between Separated Oscillator and Power Units , U.S. Patent  
No.5,946,332

### **Conclusion**

6. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

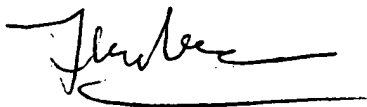
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung VY whose telephone number is (703) 605-0757. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Hung T. Vy  
Art Unit 2828

August, 16 2001



QUYEN LEUNG  
PRIMARY EXAMINER

for  
Stephan Lp